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Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, D.C. 20554

SEP 24 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)

Routine Licensing of Large Numbers)
 of Small Antenna Earth Stations)
 Operating in the Ka-Band)

IN Report No. 97-27

To: The Commission

COMMENTS OF THE AFFILIATED AMERICAN RAILROADS

The Affiliated American Railroads, by their undersigned counsel, hereby submit their Comments in response to the Commission's request for comment in a Public Notice released on September 5, 1997.^{1/} In the *Public Notice*, the Commission sought comment on issues raised in the *Petition for Rulemaking* filed by several GSO/FSS Ka Band satellite licensees^{2/} and in comments filed by Teledesic Corporation in support of the *Petition*.^{3/} The Commission stated that it was seeking additional comments on the issues raised in the *Petition* and the *Teledesic Comments* to refresh the record in this proceeding.

^{1/} *Commission Requests Comment to Refresh Record on Proposals for Blanket Licensing of Satellite Earth Stations Operating in the 17.7 - 20.2 GHz and 27.5 - 30.0 GHz Frequency Bands and Sharing Between Fixed Terrestrial Services in the 17.7 - 19.7 GHz Bands*, IN Report No. 97-27, *Public Notice* (released September 5, 1997) (the "*Pubic Notice*").

^{2/} *Routine Licensing of Large Numbers of Small Antenna Earth Stations Operating in the Ka-Band*, *Petition for Rulemaking*, RM-9005, filed December 23, 1996 by Lockheed Martin Corporation, AT&T Corp., Hughes Communications, Inc., Loral Space & Communications, Inc., and GE American Communications, Inc. (the "*Petitioners*") (the "*Petition*").

^{3/} Comments of Teledesic in RM-9005, filed February 18, 1997 ("*Teledesic Comments*").

The Petitioners requested the Commission to amend its rules to provide for blanket licensing of ubiquitous small antenna earth stations in the 19.7-20.2 GHz, 28.35-28.6 GHz and 29.25-30.0 GHz bands and to consider implementing a separate proceeding to study the possibility of sharing between GSO/FSS and fixed service ("FS") terrestrial users in the 17.8-18.8 GHz Band (the "18 GHz Band"). Teledesic supported the *Petition* but urged the Commission to go further by extending blanket licensing to the 18 GHz Band.

The railroads have no objection to the implementation of blanket licensing for satellite earth stations in the bands originally indicated in the *Petition*. These bands have been allocated to satellite services in the United States on an exclusive Primary basis and blanket licensing of earth stations would therefore present no danger of harmful interference to the railroads and other FS users. The railroads agree with the Petitioners that the issue of sharing in the 18 GHz Band should be addressed in a separate proceeding. The railroads strongly disagree, however, with Teledesic's proposal that blanket licensing of satellite earth stations be extended to all Ka Bands, including those currently used by FS users such as the 18 GHz band.^{4/}

The 18 GHz Band is employed by incumbent terrestrial users for various fixed point-to-point and point-to-multipoint applications. The railroads use the 18 GHz Band for communications that are crucial to public safety and safe train operations. Any interference to these critical communications could result in the loss of life or property.

^{4/} *Teledesic Comments* at 1.

The 18 GHz band is allocated to FS users on a co-Primary basis with FSS satellite services.^{5/} As co-Primary users of this Band, the FSS users are required by the rules to coordinate the location of their earth stations in a manner that protects the sharing services from harmful interference.^{6/} Blanket licensing of satellite earth stations in this band would make it impossible to ensure this protection for FS users. The ubiquitous nature of blanket-licensed earth stations would be antithetical to the need to protect FS systems from interference. As described by both the Petitioners and Teledesic, there are likely to be tens of millions of earth station transceivers in use by the FSS systems. This extremely large number of transceivers would make it impossible to adequately protect FS users.

In support of its proposal for blanket licensing of satellite earth stations in the 18 GHz band, Teledesic cites two prior decisions where the Commission adopted a blanket licensing procedure: *Amendment of the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to, a Radiodetermination Satellite Service, Second Report and Order*, 104 F.C.C.2d 650 (1986)("2nd RDSS Order"); and *Amendment of Part 90 of the Commission's Rules to eliminate Separate Licensing of End Users of Specialized Mobile Radio Systems, Report and Order*, 7 FCC Rcd 5558 (1992)("SMR Order"). According to Teledesic, in both of these decisions "the Commission has reduced administrative cost and delay by issuing blanket licenses but requiring licensees to

^{5/} 47 C.F.R. § 25.202 (1996).

^{6/} 47 C.F.R. § 25.203 (1996).

conduct the necessary coordination."^{7/} While it is true that the Commission imposed blanket licensing in both the *2nd RDSS Order* and the *SMR Order*, these decisions are inapposite to the situation presented by FS use of the 18 GHz Band and do not support Teledesic's proposal to allow blanket licensing here.

The bands allocated to RDSS were very lightly used compared to the heavy use of the 18 GHz Band by FS incumbents. The 1610-1626.5 MHz band allocated for uplink transmissions in the RDSS proceeding had been allocated to the radio astronomy service on a secondary basis. The Commission noted that RDSS providers and the National Academy of Sciences had come to an agreement regarding the protection of only six radio astronomy sites from RDSS transmissions. According to the Commission, the agreement meant that RDSS could be offered "without serious interference problems between the two services."^{8/}

Prior to its allocation to RDSS, the 2500 MHz band allocated for downlink transmissions in the RDSS proceeding was also very lightly used by incumbent terrestrial fixed and mobile licensees.^{9/} The Commission grandfathered the small number of fixed and temporary fixed stations in the band and recognized that coordination with RDSS

^{7/} *Teledesic Comments* at 4-5.

^{8/} See *Amendment of the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to, a Radiodetermination Satellite Service*, 58 RR 2d 1416, 1419 (P & F 1985) ("*RDSS Allocation Order*").

^{9/} See *RDSS Allocation Order* at 1420, n.10 (The Commission noted that there were only about 70 mobile and fixed stations used for electronic news gathering and for studio-to-transmitter links and about 21 private licenses operating under Parts 90 and 94).

stations would be possible for both fixed and temporary fixed stations.^{10/} The Commission also grandfathered the small number of existing mobile licensees on the condition that, if they caused an unacceptable level of interference to RDSS licensees, the RDSS licensees would have the option of paying for their relocation.^{11/}

Thus, the occupancy conditions existing in the 2500 MHz band when the Commission imposed blanket licensing in the *2nd RDSS Order* were very different than those currently existing in the 18 GHz Band. In contrast to the lightly used 2500 MHz band, the 18 GHz Band currently is heavily used by licensees for various fixed point-to-point and point-to-multipoint applications. These users currently employ over 30,000 frequencies in the 18 GHz Band. In addition, many 2 GHz microwave licensees displaced by the operations of personal communications services ("PCS") may be required to relocate to the 18 GHz Band. In sum, the high level of current and future use of the 18 GHz Band by incumbent terrestrial users makes it an especially inappropriate band for blanket licensing for a co-Primary service. This level of use readily distinguishes the 18 GHz Band from the 2500 MHz band allocated for RDSS.

In the *SMR Order*, the Commission eliminated the separate licensing requirement for end users of SMR systems and instead allowed end users to operate under a blanket license issued to an SMR base station operator.^{12/} Contrary to Teledesic's claim, however, the *SMR Order* provides no support for the blanket licensing proposal here. Although

^{10/} *RDSS Allocation Order*, ¶ 18, n.11.

^{11/} *Id.*, ¶ 19.

^{12/} *SMR Order* at 5559.

SMR end users were relieved of the obligation to obtain individual licenses, the SMR systems were licensed on a site-specific basis subject to distance separation requirements to prevent co-channel and adjacent-channel interference. This was an entirely different situation than the one presented by blanket licensing of satellite earth stations in the 18 GHz Band, where interference protection would be impossible due to the ubiquitous nature of the satellite earth stations.

CONCLUSION

For the foregoing reasons, the railroads urge the Commission to reject Teledesic's request for blanket licensing of satellite earth stations in the 18 GHz Band. Blanket licensing would make it impossible to coordinate the shared use of this band so as to ensure against interference to the shared users. Because coordination is necessary to ensure the continued use of the 18 GHz band by FS users, such a licensing scheme, while appropriate for other parts of the Ka Band, should not be adopted for the 18 GHz portion of the band.

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CERTIFICATE OF SERVICE

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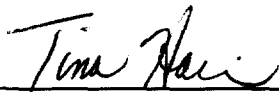
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